

SMELYANSKIY, M. Ya.

~~SECRET~~

S/105/61/000/004/002/003  
B116/B206

AUTHOR: Sergeyev, A. S., Docent

TITLE: Dissertation submitted for the purpose of obtaining the degree  
of Candidate of Technical Sciences

PERIODICAL: Elektrichestvo, no. 4, 1961, 93

TEXT: The following dissertation was presented at the Moskovskiy energeticheskiy institut (Moscow Power Engineering Institute) by M. Ya. Smelyanskiy on June 23, 1959: "Study of a vacuum arc furnace with a consumable electrode". Official opponents were: A. V. Netushil, Doctor of Technical Sciences, Professor, and A. N. Sokolov, Candidate of Technical Sciences, Docent. A method for studying the electric arc in a vacuum was elaborated, which takes account of the characteristics of the furnace type investigated. The volt-ampere characteristics of the arc were determined. The effect of the magnetic field generated by the solenoid surrounding the vacuum vessel on the arc was studied. A method was elaborated for measuring the temperature of the liquid metal and the temperature distribution along the height of the crystallizer wall. [Abstracter's note: This is a full

Card 1/2

PHASE I BOOK EXPLOITATION

SOW/6123

Smelyanskiy, Matvey Yakovlevich, and Kirill Davydovich Guterman

Rabochiy protsess i raschet vakuumnykh dugovykh pechey (Operation and Design of Vacuum Arc Furnaces). Moscow, Gosenergoizdat, 1962. 111 p. (Series: Biblioteka elektrotermista, vyp. 12)  
Errata slip inserted. 4,700 copies printed.

Ed.: L. G. Tkachev; Tech. Ed.: V. V. Yemzhin. Ed. of series:  
A. D. Svenchanskiy.

PURPOSE: This booklet is intended for engineering personnel engaged in designing vacuum arc furnaces and for technical personnel operating these furnaces.

COVERAGE: The booklet presents an analysis of the operation of vacuum arc furnaces, which serves as a basis for establishing the procedure of estimating the furnace power. Designs of vacuum arc furnaces, as well as electrical, thermal and other phenomena taking place in the melting process, are discussed. Knowledge of all basic elements of the furnace operation is stated to be

Card 1/0

## Operation and Design (Cont.)

SCV/6123

very important, helping operators to determine optimum operating conditions and to correct defects in various sections of the furnace system. The authors express their thanks to the following Professors and Doctors of Technical Sciences: A. D. Svenchanskiy, G. P. Ivantsov, V. A. Fabrikant, V. N. Klyarfel'd, I. L. Kaganov, and V. I. Dobatkin; Candidates of Technical Sciences V. A. Boyarshinov, S. G. Glazunov, and O. Z. Budzinskii; and Engineers A. S. Ronzhin, Ye. I. Morozov, A. P. Andreyev, and L. G. Tkachev. There are 51 references: 39 Soviet, 11 English, and 1 German.

## TABLE OF CONTENTS:

Foreword	
Introduction	3
Ch. I. Designs of Vacuum Arc Furnaces	4
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1. The vacuum arc-furnace operating process	21
Card 2/0	21

SMELYANSKIY, Matvey Yakovlevich; AL'TGAUZEN, A.P., retsenzent;  
TSISHEVSKIY, V.P., red.; LARIONOV, G.Ye., tekhn. red.

[Design of electrothermic plants] Proektirovanie elektro-  
termicheskikh ustavovok. Moskva, Gosenergoizdat, 1962. 182 p.  
(MIRA 15:9)  
(Electrometallurgy—Equipment and supplies)

GUTTERMAN, K.D., inzh.; SMELYANSKIY, M.Ya., kand.tekhn.nauk;  
SAKHONENKO, G.S., inzh.

Feeding vacuum arc furnaces from semiconductor rectifiers.  
Vest.elektroprom. 33 no.1:52-56 Ja '62. (MIRA 14:12)  
(Electric furnaces)

SULEYANSKIY, Matvey Yakovlevich; GUTERMAN, Kirill Davydovich;  
BOYARSHINOV, V.A., kand. tekhn.nauk, retsenzent; TKACHEV,  
L.G., inzh., red.; YEMZHIN, V.V., tekhn. red.

[Design and operation of vacuum arc furnaces] Rabochii protsess  
i raschet vakuumnykh dugovykh pechei. Moskva, Gosenergoizdat,  
1962. 111 p. (Biblioteka elektrotermista, no.12)

(MIRA 15:11)

(Electric furnaces--Design and construction)  
(Vacuum metallurgy)

PHASE I BOOK EXPLOITATION

SOV/6343

Smelyanskiy, Matvey Yakovlevich, Vladimir Arkad'yevich Boyarshinov,  
Kirill Davidovich Guterman, Leonid Grigor'yevich Tkachev, and  
Vsevolod Petrovich Tsishevskiy

Dugovyye vakuumnyye pechi i elektronnyye plavil'nyye ustanovki  
(Vacuum Arc Furnaces and Electron-Beam Melting Units) Moscow,  
Metallurgizdat, 1962. 210 p. Errata slip inserted. 2400  
copies printed.

Ed. of Publishing House: M. L. Yezdokova; Tech. Ed.: P. G. Islent'-  
yeva.

**PURPOSE:** This book is intended for engineering personnel of electro-  
metallurgical plants in ferrous and nonferrous branches of the  
metallurgical industry and machine building. It may also be use-  
ful to students at metallurgical and power-engineering schools of  
higher education and to members of scientific research organiza-  
tions.

Card 1/5  
2

SMELYANSKIY, Matvey Yakovlevich; BORTNICHUK, Nikolay Iosifovich;  
TSISHEVSKIY, V.P., red.; FRIDKIN, L.M., tekhn. red.

[Short networks in electric furnaces] Korotkis seti elek-  
tricheskikh pechei. Moskva, Gosenergoizdat, 1962. 93 p  
(Biblioteka elektrotermista, no.13) (MIRA 16:4)  
(Electric furnaces)

PHASE I BOOK EXPLOITATION

SOV/6343

Smelyanskiy, Matvey Yakovlevich, Vladimir Arkad'yevich Boyarshinov,  
Kirill Davidovich Guterman, Leonid Grigor'yevich Tkachev, and  
Vsevolod Petrovich Tsishevskiy

Dugovyye vakuumnyye pechi i elektronnyye plavil'nyye ustanovki  
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metallurgical industry and machine building. It may also be use-  
ful to students at metallurgical and power-engineering schools of  
higher education and to members of scientific research organiza-  
tions.

Card 1/4

Vacuum Arc Furnaces (Cont.)

SOV/6343

**COVERAGE:** The book describes the new vacuum melting equipment and electron-beam melting units which have been introduced in large industrial countries during the last few years, and which yield metals of specific quality and enhanced properties. Special metallurgical features of the units, their operation, and the thermal and electrical processes taking place in them are discussed. Electrical equipment and problems of its layout and automatic control are also outlined. The Introduction was written by V. A. Boyarshinov and M. Ya. Smelyanskiy; Ch. I, by M. Ya. Smelyanskiy and K. D. Guterman; Ch. III, by M. Ya. Smelyanskiy; Ch. II, by V. A. Boyarshinov; and Chs. IV and V, by V. P. Tsishevskiy. All materials on electron-beam melting and related equipment were written by L. G. Tkachev and M. Ya. Smelyanskiy, and materials on semiconductor power sources, as well as automatic control of vacuum furnaces, by K. D. Guterman. General editing was by M. Ya. Smelyanskiy and V. P. Tsishevskiy. The authors thank the members of the All-Union Scientific Research Institute of Electrothermal Equipment for their assistance. There are 73 references, mostly Soviet.

Card 25

SMELYANSKIY, M.Ya., kand.tekhn.nauk; TKACHEV, L.G., inzh.

Development and prospects of using electronic smelting systems. Vest. elektro prom. 34 no.2:32-35 F '63. (MIRA 16:2)  
(Smelting)

SMELYANSKIY, M.Ya., kand. tekhn. nauk; TSISHEVSKIY, V.P., inzh.

Some new applications of an arc-discharge in electrothermics.  
Vest. elektro prom 34 no.6:43-48 Je '63. (MIRA 16:7)

(Electric arc) (Heat engineering)  
(Electric furnaces)

ZOLOTOV, S.V., kand. tekhn. nauk; SMELYANSKIY, M.Yu., kand. tekhn. nauk, dots., red.

[Arc furnaces: Electrical characteristics of arc furnaces; summary of lectures] Dugovye pechi: Elektricheskie kharakteristiki dugovykh pechei; konспект lektsii. Moskva, Mosk. energeticheskii in-t, 1964. 114 p. (MIRA 18:5)

L 56087-65 EPA(s)-2/EWT(m)/EPF(n)-2/EWP(t)/EWP(b) Pt-7/Pu-4 LJP(c)

JD/RW/JG

ACCESSION NR: AR5015149

UR/0137/65/000/005/V046/V046<sub>52</sub>

51

B

SOURCE: Ref. zh. Metallurgiya, Abs. 5V239

AUTHOR: Smelyanskiy, M. Ya.; Malyshev, S. A.; Tkachov, L. G.; Guterman, K. D.

TITLE: Investigation of the process of overheating a metal during electron beam melting

CITED SOURCE: Elektrotermiya. Nauchno-tehn. sb., vyp. 39, 1964, 18-20

TOPIC TAGS: overheating, melting, metal, electron beam melting, electron beam heating, metal vaporization, melting point, temperature dependence, iron, zirconium, molybdenum

TRANSLATION: In the laboratory of a MEI electrothermal installation, an investigation was made of the process of remelting Armco iron, zirconium, and molybdenum in an electron beam furnace using a 112 mm diameter ingot mold and 150 kilowatts of power. At the time of melting the temperature of the metal was measured with an optical pyrometer with an accuracy of 60-70°. The measurements showed that in melting the above mentioned metals, they can be heated considerably above the melting temperature. With an increase in power supply, the degree of

Card 1/2

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ACCESSION NR: AR5015149

overheating increases, but not proportionally. In melting the metal with a view to refining it, it is expedient to raise the temperature of the bath up to such a point where losses of the metal by vaporization do not exceed acceptable limits.  
2 figures, 2 tables. D. Kashaeva.

SUB CODE: MM

ENCL: 00

192  
Card 2/2

L 61023-65 EMT(d)/EMT(1)/EMT(m)/EPF-1..2/ENG(m)/ENI(d)/EWP(v)/EPA(w)-2/  
EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(1) 12-4/75-4/Pf-4/P1-4 IJP(c) JD/AT

ACCESSION NR: AR5017411

UR/0137/65/000/006/V041/V041 84  
81  
B

SOURCE: Ref. zh. Metallurgiya, Abs. 6V263

AUTHOR: Guterman, K. D.; Smelyanskiy, M. Ya.; Tkachev, L. G.  
v8,55 v4,55 v4,55

TITLE: Experimental investigation of the energy balance of power in an electron beam melting apparatus

CITED SOURCE: Elektrotermiya. Nauchno-tekh. sb., vyp. 40, 1964, 6-9

TOPIC TAGS: electron beam melting, electron energy level, electron beam,  
electron plasma, molybdenum / SKB-5245 electron melting apparatus

TRANSLATION: The experiments were carried out in a type SKB-5245 semi-industrial electron melting apparatus. The diameter of the electron beam was equal to or less than 5-10 mm, which corresponds to a specific surface power of 500-150 kilowatts/cm<sup>2</sup>. The temperature of the bath surface was measured with an optical pyrometer. Spectrographic investigations showed that, in spectral regions with an effective wave length of approximately 6500 Å, there was practically no absorption of radiation in the plasma above the bath. Spectrometric investigations

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ACCESSION NR: AR5017411

3

of the plasma above the bath showed that it consists basically of excited atoms of the melted metal. Losses due to the interaction of the beam with the plasma are not great thanks to the small value of excitation potential and the low density of the plasma. The conclusion is drawn that for melting large diameter molybdenum ingots, the electron apparatus should have beams with a power of 300-500 kilo-watts and over. Orig. art. has: 2 figures, 2 tables. D. Kashayeva

SUB CODE: MM, NP

ENCL: 00

glk  
Card 2/2

"APPROVED FOR RELEASE: 08/25/2000

**CIA-RDP86-00513R001651420017-4**

Journal of Aging Studies, 2000, 14, 101-114  
© 2000 Elsevier Science Ltd. All rights reserved.  
0898-2603/00/\$20.00  
PII S0898-2603(99)00033-2

1. *Leucosia* (L.) *leucostoma* (L.) *leucostoma* (L.) *leucostoma* (L.) *leucostoma* (L.)

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CIA-RDP86-00513R001651420017-4"

L 23018-66

ACC NR: AP6010030

SOURCE CODE: UR/0170/66/010/003/0287/0293

DS  
BAUTHOR: Voronin, B. D.; Tsirlin, A. M.; Smelyanskiy, M. Ya.

ORG: none

TITLE: Calculation of gas-dynamic factors in designing electric arc heaters with a vortex gas-stabilization arc

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 10, no. 3, 1966, 287-293

TOPIC TAGS: gas dynamics, electric arc, gas flow, electric property, heat radiation, vortex flow, thermal stability

ABSTRACT: Experiments have been carried out on stabilization of an arc by a vortex gas flow in an electric hydrogen heater. Boundaries of stable operation of the apparatus were found. Investigations of gas dynamics reveal an explicit similarity between the dependence of the limiting current and the tangential velocity in the electrode channel on the gas flow rate. The quantitative relation was found experimentally between the controlling parameters of the heater to express the gas-dynamic conditions of the arc stabilization at the boundary of the steady operation region. Many equations are presented for the calculation of electrical parameters and characteristic dimensions (the anode diameter) which provide a good stabilization of the arc.

Card 1/2

UDC: 533.6

L 23018-66

ACC NR: AP6010030

the arc and the required heat generation for a particular type of electrical heater. Orig. art. has: 4 figures, 8 formulas, and 1 table.  
[Based on author's abstract] [NT]

SUB CODE: 20/      SUBM DATE: 01Jun65/      ORIG REF: 005/  
OTH REF: 001/

Card 2/2 xla

ACC NR: AR6027188

SOURCE CODE: UR/0275/06/000/005/V002/V002

AUTHOR: Smelyanskiy, M. Ya.; Tkachev, L. G.

TITLE: Review of research works on electron-beam melters conducted at the Department of Electrothermal Outfits, MEI

SOURCE: Ref. zh. Elektronika i yeye prilomeniye, Abs. 5V10

REF SOURCE: Elektrotermiya. Nauchno-tekh. sb., vyp. 46, 1965, 22-25

TOPIC TAGS: electron beam melting, electron gun

ABSTRACT: Since 1959, a number of researches on electron-beam heating have been carried out at the Department of Electrothermal Outfits, MEI. These results are reported: (1) Methods have been developed and apparatus constructed for investigating high-power electron-optical systems; (2) Several electron guns from 75 to 500 kw were developed; (3) Technological characteristics of the electron melting outfit have been thoroughly investigated; (4) The power balance in the electron melting outfit has been investigated which has permitted developing methods for finding the outfit parameters; (5) Specifications for the power supply sources for high-power electron guns have been studied and formulated. P. B. [Translation of abstract]

SUB CODE: 09, 13

Card 1/1

UDC: 621.38:62 (general)

ACC NR: AR6025710

SOURCE CODE: UR/0196/66/000/004/N002/N002

AUTHOR: Bortnichuk, N. I.; Volokhonvskiy, L. A.; Gogol', V. B.; Smelyanskiy, M. Ya.

TITLE: Investigation of stability of high-power arc discharge in vacuum

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 4N11

REF SOURCE: Elektrotermiya. Nauchno-tekhn. sb. vyp. 46, 1965, 33-36

TOPIC TAGS: vacuum furnace, arc furnace, melting furnace

ABSTRACT: To improve the explosion safety of vacuum arc furnaces, a system of stabilization of arc discharge is necessary which would prevent the arc from throwing over to the crystallizer wall and would cope rapidly enough with such a throw-over if it occurs. Peculiarities of vacuum arc discharge were investigated which permits recommending measures for improving the explosion safety of vacuum arc furnaces without resorting to any basic change in their design. A solenoid constantly on during the melting and producing a 60-oe vertical field is recommended. To eliminate the solenoid fringe effect, an additional solenoid connected in series with the main one and producing a vertical field in the same direction should be placed at the bottom of the crystallizer, under its tray. To eliminate side discharges, a field of 100 oe is needed. Also, shorter arcs are recommended. Five figures. Bibliography of 3 titles. I. Kaganovskiy [Translation of abstract]

SUB CODE: 13, 09

Card 1/1

UDC: 621.365.91:537.523.5:533.5.001.5

L 09144-67

ACC NR: AR6027496

was fed by the mechanism into a plasma jet at a rate of 2-4 cm/min. The carbon concentration in the reaction products was from 0.38 to 1.1% with a reduction to 0.14% after the second remelting, which shows that metallic Nb and Ta may be produced in ingots. 9 illustrations, bibliography of 11 titles. V. Pryanikova. [Translation of abstract]

SUB CODE: 11

Card 2/2 set

L 03993-67

ACC NR: AF6012121

the nonlinear part of the volt-ampere characteristic of the arc by a nonlinear element (or by a device with an analogous characteristic). To provide full automation of the entire melting cycle, a read-out of the length of the remaining part of the electrode is produced. This read-out is produced with the automatic shifting of the furnace to a cycle for finding out the shrinkage cavity after melting of a given length of the electrode.

SUB CODE: 13/ SUBM DATE: 29Nov62

ACC NR: AP7004634

SOURCE CODE: UR/0288/66/000/003/0057/0065

AUTHOR: Voronin, B. D.; Tsirlin, A. M.; Smelyanskiy, M. Ya.]

ORG: none

TITLE: Method for determining the operating parameters and the basic geometrical dimensions of vortex-stabilized electric-arc generators

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 3, 1966, 57-65

TOPIC TAGS: plasma generator, plasma heating, plasma arc, electric arc, plasma jet, arc discharge

ABSTRACT: A method is developed for calculating the basic working parameters of vortex-stabilized electric-arc plasma generators used as plasma jet sources, as high-temperature gas heaters, and as chemical reactors. In particular, expressions are derived for determining the volt-ampere characteristic and the characteristic geometrical diameter of the anode of such generators. In addition, the effects of current, gas discharge, and geometrical dimensions on the conditions of arc stabilization are considered. It is shown that the length of the anode, which is determined by the length of the arc discharge in its channel, has an appreciable effect on thermal characteristics of the generators. Other geometrical parameters, such as the diameter and length of both the vortex chamber and cathode, the number and cross-sectional area of inlet nozzles, and the spacing between the electrodes, do not

Card 1/2

UDC: 621.373.3

DUMAY, I. B.; SMELYANOV, N. L.

Mounted subsoil plow. Trakt. i sel'khozmash. 31 no.11:32-33  
N '61. (MIRA 14:12)

1. Spetsial'noye konstruktorskoye byuro zavoda im. Oktyabr'skoy revolyutsii.  
(Plows)

ZININ, B., inzhener; SMELYANSKIY, R., inzhener.

Special truck trains for transporting bricks on trays. (MLRA 9:10)  
Avt. transp. 34 no.7:8-9 J1 '56.

(Bricks--Transportation)

SMELYANSKIY, R.I.

"X-ray diagnosis of foreign bodies in the eye" by E.S.  
Vainshtein. Reviewed by R.I. Smelianskii. Vest. oft. 76  
no.3:94-95 My-Je '63. (MIRA 17:2)

KONONOV, Aleksandr Matveyevich; SMELYANSKIY, V.A., red.; MAKHOVA,  
N.N., tekhn. red.; SOKOLOVA, N.N., tekhn. red.

[Manual on "Belarus" tractors] Spravochnik po traktoram  
"Belarus'." Moskva, Sel'khozizdat, 1962. 255 p.  
(MIRA 16:2)

(Tractors)

IVANOVA, Galina Aleksandrovna; SMELYANSKIY, V.A., red.; TATURA,  
G.L., tekhn. red.

[Fundamentals of the theory of metal cutting] Osnovy teorii  
rezaniia, instrumenty, stanki, Moskva, Uchpedgiz, 1963. 263 p.  
(MIRA 17:3)

CHERKINSKIY, D. S., inzr.; KALASHNIKOVA, V. N., inzr.; SMELYANSKIY, V. L., inzr.

Some properties of cement containing an admixture of latex.  
Sbor. trud. VNIINSM no. 2:174-190 '60. (MIRA 15:1)  
(Cement) (Latex)

87656

15 3200 1273 and 2209 only

S/191/60/000/003/001/010  
B013/B055

AUTHORS: Cherkinskii, Yu S., Kalashnikova, V M., Smelyanskiy, V L.

TITLE: Polymer-cement Materials

PERIODICAL: Plasticheskiye massy, 1960, No. 9, pp. 4 - 7

TEXT: Using polyvinyl-acetate cement concrete as an example, the authors deal with the basic requirements polymer latices and emulsions have to meet for the preparation of polymer cement. The polyvinyl-acetate emulsion prepared in the presence of polyvinyl alcohol is very stable and does not coagulate on mixing with cement. Latex mixtures may be stabilized temporarily by the addition of electrolytes. It was found that the stabilizers and emulsifiers used in polymerization affect not only the mixing of latex with cement, but also considerably the setting of cement. The ratio of polymer and cement was found to be the determining factor for the physicomechanical properties of the polyvinyl-acetate cement concrete. At a ratio of polymer:cement=0.2, the impact resistance of concrete is five times that of ordinary concrete. The following principles must be observed in the choice of latices or emulsions: a) The existence of adhesiveness and

Card 1/2

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APPROVED FOR RELEASE: 08/25/2000

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Polymer-cement Materials

S/191/60/000/003/001/010  
B013/B055

cohesiveness during the mixing of cement. b) Polymer emulsions must contain stabilizers to prevent their coagulating on mixing with cement. c) Emulsifiers and stabilizers must not have a detrimental effect on the setting of cement. It would be desirable if emulsions contained substances to improve setting. d) Tests using dibutyl phthalate showed that polymers of maximum hardness and strength must be applied for the preparation of polymer-cement concretes with high compressive, flexural, and tensile strength. e) The use of polymers resistant to water and aggressive mediums enables improvement of polymer-cement concrete properties. The preparation of mixtures of polymer emulsions and cements is extremely simple and in no way different from the usual preparation of ordinary concrete. This will permit the rapid introduction of polymer cements in construction engineering. There are 8 figures and 14 references: 8 Soviet, 3 German, 2 US, and 1 British.

Card 2/2

CHERKINSKIY, Yu., inzh.; SMELYANSKIY, V., inzh.

Polymer-cement building mortars. Na stroi.Ros. no.4:34-35 Ap '61.  
(MIRA 14:6)

(Adhesives) (Polymers)

CHERKINSKIY, Yu. S., inzh.; KALASHNIKOVA, V. M., inzh.;  
SMELYANSKIY, V. L., inzh.

Restoration of concrete coatings by polymer-cement concretes.  
Sbor. trud. VNIINSM no.5:48-64 '61. (MIRA 15:10)

(Roads, Concrete—Maintenance and repair)

SMELYANSKIY, V., inzh.

Polymer and cement mortar for tiling. Stroitel' no.11:23-24 "I  
'61. (Cements, Adhesive) (Tile laying)  
(MIRA 15:1)

VOROB'YEV, V.A., doktor tekhn.nauk; SMELYANSKIY, V.L., inzh.

Polymer-cement mortars for fastening ceramic facing. Stroi.  
mat. 8 no.6:34-36 Je '62. (MIRA 15:7)  
(Polymers) (Mortar) (Facades)

SMELYANSKIY, V.L., inzh.; KALASHNIKOVA, V.M., inzh.

Elastoplastic properties of polymer-cement concretes.  
Bet. i zhel.-bet. 8 no.7:312-314 Jl '62. (MIRA 15:7)  
(Polymers)  
(Concrete--Testing)

SIROTKINA, N.L., inzh.; SMELYANSKIY, V.L., inzh.

Electron microscopy study of polymer cement mortars. Sbor.  
(MIRA 17:9)  
vad. VNIIMSM no.8:43-56 '63.

SIROKINA, N.I.; SMELYANSKIY, V.L.

Electron microscope study of polymer-cement suspensions. Zav. lab.  
29 no.3:970-972 '63. (CIA 16:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'-  
nykh materialov.  
(Cement) (Polymers) (Electron microscopy)

**"APPROVED FOR RELEASE: 08/25/2000**

**CIA-RDP86-00513R001651420017-4**

**APPROVED FOR RELEASE: 08/25/2000**

CIA-RDP86-00513R001651420017-4"

• 1. In 1970, a US research team reported that in the northwestern part of the Indochinese Peninsula, "Red" sandalwood (page 9 no. 6: *Lysiloma leptocephalum* L.) was found.

(Lysiloma leptocephalum)

• 2. This wood is popularly known as "the wood of undivided love" because it is used in the manufacture of love amulets.

AKSEL'FAND, A.M., kand.tekhn.nauk; SHELVANSKIY, V.M., inzh.; TOMASHEVSKIY,  
M.G., inzh.

Experience in using a cyclone emulsifier in the manufacture of  
drawing emulsions. Vest.elektroprom. 33 no.6:63-64 Je '62.  
(MIR 15:7)

(Electric wire) (Drawing (Metalwork))

SMELYANSKIY, V.M.

Locating deep fractures from data of structural drilling. Nefte-  
gaz, geol. i geofiz. no.4:26-29 '63 (MIRA 17:7)

1. Kiyevskaya ekspeditsiya Ukrainskogo nauchno-issledovatel'sko-  
go geologorazvedochnogo instituta.

SMELYANSKIY, V.M.

System of fractures in the northwestern sector of the Dnieper-  
Donets Lowland. Geol. nefti i gaza 8 no.4:15-19 Ap '64.  
(MIRA 17:6)  
1. Kiievskaya ekspeditsiya Ukrainskogo nauchno-issledovatel'skogo  
geologorazvedochnogo instituta.

SMELYANSKIY, V.M.

Genetic types of local uplifts in the northwestern sector of the  
Dnieper-Donets Lowland. Neftegaz. geol. i geofiz. no.6:13-22  
'64. (MIRA 17:8)

J. Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy  
institut.

SMELYANSKIY, Z.B.

DECEASED

1961/2

d. 1960

SEE ILC

MEDICINE

ROSTISLAVOV, V.I.; SMELYY, A.G.

Compressionless unit for painting surfaces using water-base paints.  
[Suggested by V.I. Rostislavov, A.G.Smelyi]. Rats. i izobr. predl.  
v stroi. no.6:48-52 '58. (MIRK 11:10)  
(Painting, Industrial--Equipment and supplies)

SMELYY, A.S.; SHUBIN, V.V.; KIVSHEJKO, A.M.

Thin-layer polyamide coatings. Mashinostroitel' no.12:18  
(MIRA 17:1)  
D '63.

SMELYY, A.S.; SHUBIN, V.V.

Reconditioning textile machine parts by vortex spraying.  
Mashinostroitel' no.3:34-35 Mr '64. (MIRA 17:4)

L 13599-63

EWP(r)/EWT(m)/BDS AFFTC/APGC EM

ACCESSION NR: AP3004810

8/0179/63/000/004/0162/0166 55  
53

AUTHOR: Mossakovskiy, V. I. (Dnepropetrovsk); Smely'y, G. N. (Dnepropetrovsk)

TITLE: Experimental investigation of the effect of testing-machine rigidity on  
the stability of plain cylindrical shells under axial compression.SOURCE: AN SSSR. Izv. Otd. tekhn. nauk. Mekhanika i mashinostroyeniye, no. 4,  
1963, 162-166TOPIC TAGS: cylindrical shell, plain-cylindrical-shell stability, shell-stability  
test, shell stability, critical stress, buckling, buckling behavior, buckling  
stressABSTRACT: Results are given of a large number of tests undertaken to determine  
the influence of the rigidity (or elasticity) of testing machines on the critical  
(buckling) stresses of plain circular cylindrical shells under axial compression.  
The tests were carried out on the following machines: the industrial machines  
ZDM-100t (the most rigid of the three, with hydraulic drive) and ZDM-2.5t (inter-  
mediate rigidity, screw-nut type) and a machine of low rigidity, especially de-  
signed for "elastic loading" (compressed-air actuation). Comparison of the

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ACCESSION NR: AP3004810

2

averaged values of data obtained on each machine showed that the higher values of critical stresses were measured on the more rigid machines. The reliability of the formula of the linear stability theory for calculating the critical stresses is discussed, the discrepancies between theoretical and empirical data are pointed out, and the effect of testing-machine rigidity on the magnitude of buckling stresses is explained. The shells tested were made of steel, 150 mm in diameter, 300 mm high, and had a wall thickness of 0.17 mm. The test arrangement and technique used are described, and oscillographic recordings of the results are shown in diagrams. The buckling behavior of shells during testing is analyzed, and through mathematical statistics (using Student's [W. L. Gosset] criterion) it is proved that the probability that the observed effect of testing-machine rigidity could be a random phenomenon is very low. Orig. art. has: 9 figures and 2 formulas.

ASSOCIATION: none

SUBMITTED: 05Feb63

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: AP

NO REF Sov: 002

OTHER: 004

Card 2/2

TUTORSKIY, I.A.; SMELLY, Z.; DOGADKIN, B.A.

Interaction between carboxylated rubber and  $\epsilon$ -caprolactam.  
Vysokom.sosed. 1 no.11:1652-1654 N '59. (MIRA 13:5)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni  
M.V. Lomonosova.  
(Rubber) (Hexamethylenimine)

SME 77, 21

## PAGE I BOOK EXPLOITATION

SGV/1934

International symposium on macromolecular chemistry. Moscow, 1960.

Moskowskoyi simpozium po makromolekul'noy khimii SSSR, Moskva, 14-18 iyunya 1960 g.; doklady i stenografaty. Sektsiya III. [International Symposium on Macromolecular Chemistry held in Moscow, June 14-18, 1960. Papers and Summaries] Section III. [Moscow, Izd-vo AN SSSR, 1960] 469 p. 55,000 copies printed.

Tech. Ed.: P. S. Kashina.

Sponsoring Agency: The International Union of Pure and Applied Chemistry. Commission on Macromolecular Chemistry.

PURPOSE: This book is intended for chemists interested in polymerization reactions and the synthesis of high molecular compounds.

COVERAGE: This is Section III of a multivolume work containing papers on macromolecular chemistry. The articles in general deal with the kinetics of polymerization reactions, the synthesis of special-purpose polymers, e.g., ion exchange resins, semiconductor materials, etc., methods of catalyzing polymerization reactions, properties and chemical interactions of high molecular materials, and the effects of various factors on polymerization and the degradation of high molecular compounds. No paramilitaries are mentioned. References given follow the articles.

Ushakov, N. N., U. M. Rasskazov, and R. S. Tikhonova. The Radiation Method for Copolymerizing Acrylonitrile with Polystyrene and Perchlorovinyl. 170

Rachkov, S. P., G. M. Chetelatova, I. V. Buryleva, and P. N. Gerasimov. [USSR]. Crystallization of Carbonyl and Heterocyclic Polymides. 184

Santos, J. and K. Gal (Brazil). Grafting Methyl Methacrylate onto Prints of Poly(methyl Alcano). Under the Action of X-Ray. 207

Lazar, M., S. Radó, and P. Pálácsik (Czechoslovakia). Grafting Methacrylate onto Polypropylene and Polyethylene. 214

Babotovský, J. A., Z. Šedivý, and V. M. Královský (Czechoslovakia). The Interaction of Cinnamoyl-Containing Butadiene-Styrene Rubbers With Polyamides and  $\epsilon$ -Caprolactam. 224

Kolamandla, O. S., and Te'eng Han-ming (USA). Synthesis of Free Radicals on Crosslinking in Polyethylene. 230

El'demov, I. M., A. Petrovsky, and D. A. Dobkin (USA). On the Preparation of Carbonyl-Containing Butadiene-Styrene Rubbers and Their Reactions with  $\epsilon$ -Caprolactam Under the Action of Gamma Radiation. 239

Rogovin, Z. A., V. A. Berevitckaya, Sun T'ung, Chang Wei-Ting, and Le-Jui, Gardeayen (USA). Synthesis of New Cellulose Derivatives and Other Polysaccharides. 302

Fermolenco, I. M., and P. M. Kapurkina (USA). Initiation of the Controlled Synthesis of Modified Celluloses With Oxides of Nitrogen. 310

Ivanov, V. I., E. Ya. Lenchina, V. I. Ivonova (USSR). Condensation Reactions in Chains of Cellulose Molecules. 321

Berlin, A. A., Yu. A. Penskay, and G. I. Volkov (USSR). Mechanochlorically Transformed and Block Copolymerization During the Freezing of Starch Solutions. 334

Vesnov, D. N., B. I. Afrosimov, and N. A. Iariv (USSR). Modification of the Properties of Cellulose by Grafting. 344

15. 1124 1581, 1436, 2203

22569  
S/190/61/003/005/012/014  
B170/B220

11.2210

AUTHORS: Vakula, V. L., Tutorskiy, I. A., Smelaya, N. I., Smelyy, Z.<sup>I</sup>,  
Voyutskiy, S. S.

TITLE: Adhesion of polymers. VIII. Adhesion to polyamide of graft  
and modified polymers obtained from carboxylic butadiene  
styrene rubbers and  $\epsilon$ -caprolactam and its derivatives

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 5, 1961, 775-782

TEXT: B. A. Dogadkin et al. (Kolloidn. Zh. 20, 43, 1958) proposed an intermediate polymer as binding agent in order to increase the binding strength between natural and butadiene styrene. The diffusion of the chains of the natural rubber of the graft polymer into the natural rubber and the diffusion of the butadiene styrene rubber chains into the butadiene styrene rubber would give a firm bond. Correspondingly, the graft polymers produced by V. A. Kargin, Kh. U. Ustanov, and B. I. Aykhodzhayev from styrene and viscose showed a strong adhesion to rubber. Thus, graft and modified polymers on the basis of carboxylic butadiene styrene rubbers (CBSR) and  $\epsilon$ -caprolactam and its derivatives would be able to increase the

Card 1/10 5-

22569

S/190/61/003/005/012/014

B110/B220

X

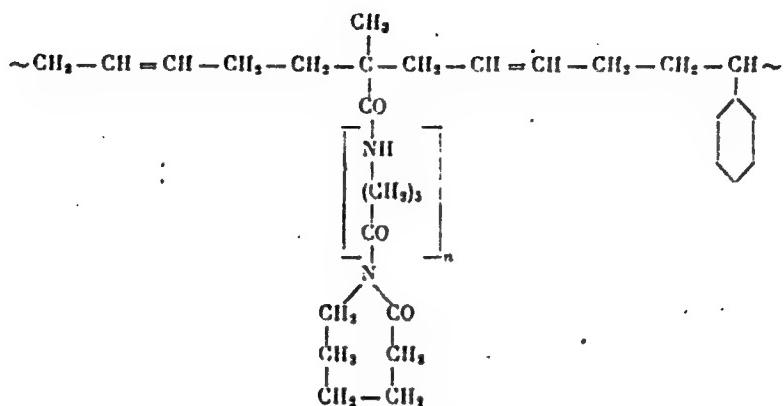
Adhesion of polymers...

adhesion of CBSR to polyamide considerably. The authors studied the adhesive properties of the above graft and modified polymers whose synthesis has been described previously by the second author (Ref. 3: Mezhdunarodnyy Simpozium po makromolekulyarnoy khimii (International Symposium of Macromolecular Chemistry), Moscow, June 1960, sektsiya III, p. 224). Their structure has been ascertained by means of infra-red spectrum and chemical determination of nitrogen and carboxyl. The films of the polymers and the polyamide were glued together and then submitted to a heat treatment of up to 100°C and tested for exfoliation by means of the dynamometer of TsNIKZ. Tables 1 to 3 show the results (A - adhesion, K - cohesion, C - miscellaneous character of destruction of the binding agent). The tested polymers of the structure

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## Adhesion of polymers...

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B110/3220



showed various lengths of the polyamide chains graft at the carboxyl groups and various frequencies of their sequence in the length of the macromolecule. If all carboxyl groups of the CBSR are substituted by long

Card 3/10.5

Adhesion of polymers...

22569  
S/190/61/C03/C05; 012/014  
B110/B220

polyamide chains (e.g. 12 caprolactam members), the adhesion to the polyamide is reduced. The introduction of groups of higher polarity (CONH) than the COOH group causes an increased rigidity and reduced diffusibility by starting intra- and intermolecular reactions. In case the chains are short (3 caprolactam members) for the same quantity of polyamide, the number of individual ends diffusing into the polyamide increases. Temperature rise increases the Brownian movement and, thus, the adhesion. The strongly polar CONH groups of the graft polymer have twice as much cohesive energy as the COOH groups of the CBSR; they cause a particularly close chain packing and enable the forming of hydrogen bonds. S-12 gave good binding results, since it contains a definite amount of bound monomers. Modified CBSR polymers containing still some methyl ester of the  $\epsilon$ -amino caproic acid were studied. Also in this case, the cohesive power of these polymers surpasses that of the initial polymers, but their adhesion is independent of the amount of ester. The introduction of polyamide chains into CBSR containing more than 30% of styrene reduces the adhesion due to increasing rigidity. Increase of the contact temperature increases the adhesion and maintains the adhesive character of exfoliation. As compared to the initial polymers, the cohesion is also higher.

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Adhesion of polymers...

3/196/61/003/005/012/514  
B110/B220

The kinetic character of the adhesion results also from its increase with increasing temperature. Thus, adhesion is fundamentally dependent on polymers of similar polarity in highly elastic or viscous state, i.e. with sufficient molecular mobility. Polymers modified by the methyl ester of  $\alpha$ -amino caproic acid (-24 and -25) (S-24 and S-25) are more adhesive than polymers with polyamide chains (-17 and -19) (S-17 and S-19). In the absence of styrene, a slight addition of caprolactam does not deteriorate the adhesive properties of rubber. The binding force between the rubber (SKS-ZOA) and ordinary material (0.5 kg/cm) increased for material impregnated with graft polymer from CBSR and polyamide to 0.95 kg/cm. For (SKB) rubber and caprone tissue impregnated with butadiene polymer modified by  $\alpha$ -caprolactam monomer (polymer -33 (S-33)), the binding force amounted to 0.8 kg/cm (0.4 kg/cm without impregnation). The specimens tested were produced by V. G. Rayevskiy in the NIIRP. There are 1 figure, 3 tables, and 9 Soviet-bloc references.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im.  
M. V. Lomonosova (Moscow Institute of Fine Chemical Technology  
imeni M. V. Lomonosov)

Card 5/10-5

52560

C. 4. SMIENENKO, N. A.

Recoverative steel-melting furnace. N. A. Smenenko,<sup>1</sup>  
M. N. Starovich, and R. Z. Khmel'nit'yan.<sup>2</sup> "Zvezda"  
Teplofiz. No. 6, 10-13 (1951).—A crit. analysis of the  
Nitskevich design (cf. C.A. 45, 9430d). The most serious  
drawback of this design is the liquid or semiliquid slag which  
is carried by the hot furnace gases and which will deposit on  
the recuperator.  
M. Ilowch

S/196/61/000/011/013/042  
E194/E155

AUTHORS: Smenkovskaya, P.T., and Gisina, K.B.

TITLE: Heat and mass exchange in drying by sublimation  
in vacuum

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika,  
no.11, 1961, 1, abstract 11G 7. (Tr. In-ta energ.  
AN BSSR, no.11, 1960, 71-77)

TEXT: An experimental study of the sublimation of pure ice  
in vacuum is described. It is shown that the intensity of  
vapourisation depends upon the degree of vacuum in the sublimator,  
on the rate of removal of evaporated moisture, on the rate of  
application of heat to the material, on the temperature difference  
between the surrounding medium and the material, and on the  
temperature of the heating surface of the sublimator. It is  
confirmed that mass exchange has a great influence on heat  
exchange. ✓

5 literature references.

[Abstractor's note: Complete translation.]

Card 1/1

БІЛУЧУК, І. І.

"Internal heat- and mass-exchange in dry food products by the method of vacuum sublimation."

Report presented at the 1st All-Union Conference on Heat- and Mass Exchange,  
Minsk, USSR, 5-9 June 1961

SMENKOVSKAYA, P.T.

Some results of experimental research on drying by sublimation in  
a vacuum. Inzh.-fiz.zhur. 4 no.11:51-58 N '61. (MIRA 14:10)

1. Institut energetiki AN BSSR, g. Minsk.  
(Drying) (Vacuum apparatus)

S/170/62/005/005/011/015  
B104/B102

AUTHORS: Smenkovskaya, P. T., Gisina, N. B.

TITLE: The effect of heat-source location on the heat and mass transfer during sublimation in vacuum

PERIODICAL: Inzenerno-fizicheskiy zhurnal, v. 5, no. 5, 1962, 96 - 101

TEXT: The variation in intensity of heat and mass transfer, depending on the arrangement of the heat sources, was studied by means of an apparatus described in an earlier paper (P. T. Smenkovskaya, IFZh, no. 11, 1961). The rate of sublimation of ice and of the drying of capillary-pore ceramics are investigated. The convective component of the heat flow is not only the result of temperature difference, but also of the mass exchange. The convective component is almost double as a result of mass exchange. The fact that the convective component of the heat flow and the heat conduction change during sublimation drying indicates that the hydrodynamic conditions influence the rate of heat transfer. Initially, while a large amount of moisture is evaporating, the convective component, determined mainly by the molar transfer of material, is large and heat

Card 1/2

SMENKOVSKAYA, P.T.; GISINA, K.B.

Influence of the location of the heat source on heat and mass transfer in sublimation in vacuum. Inzh.-fiz.zhur. no.5:96-101 My '62. (MIRA 15:7)

1. Energeticheskiy institut AN BSSR, Minsk.  
(Heat—Transmission) (Mass transfer)  
(Sublimation (Physical sciences))

SOV/84-58-9-34/51

AUTHOR: Smenkovskiy, Ye., Engineer

TITLE: New Electric Circuit for Fire Prevention and Warning  
(Novaya elektricheskaya skhema protivopozharnogo  
oborudovaniya i signalizatsii)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 9, p 30 (USSR)

ABSTRACT: The article presents the improved and simplified circuitry for the Il-14 airliner fire prevention system which was developed in the repair establishment under Ivasik. The improvement consists in better accessibility to parts which are liable to troubles. The simplification of the system is attained by the elimination of two relays out of an original five. The standard and the new wiring diagrams accompany the text.

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87368

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S/146/60/003/006/004/013  
B012/B060

AUTHOR: Smenkovskiy, Ye. G.

TITLE: Problem of the Possibility of an Inner Damping of  
Inertial Systems

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye,  
1960, Vol. 3, No. 6, pp. 34 - 44

TEXT: The gyroscopic model of a pendulum (Fig.1) with a period of 84.4 minutes, used in inertial navigation systems, was investigated here. The gyroscope was assumed to serve for the measurement of angular velocities. The model itself is an automatic regulation system. Angle  $\theta$  is controlled (Fig.2). The system is assumed to exhibit one degree of freedom and to be mounted upon an object. The latter shifts with respect to the earth at a velocity  $V$  at a constant height in the earth-equatorial plane. Three coordinate systems are introduced (Fig.2). Equations

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87868

Problem of the Possibility of an Inner  
Damping of Inertial Systems

S/146/60/003/006/004/013  
B012/B060

$$\theta = \Delta\vartheta + \Delta\vartheta_1, \quad (16), \quad U_a = \mu_1 (\varepsilon\theta + pV_\xi) \quad (18),$$

$$(I_p + c)p\delta = H_p \theta - \frac{H}{R'} V_\xi + \mu_2 \frac{1}{p} U_a \quad (19),$$

$$(T_c p + 1)p\Delta\dot{\vartheta}_1 = - \left( \frac{1}{k_p} k_g G k_p + H' p \right) \delta - T_c^2 p^2 \Delta\dot{\vartheta} + \frac{T_c}{R'} p V_\xi \quad (20)$$

are derived, and the diagram (Fig.3) corresponding to these equations is given.  $V_\xi$  is the absolute velocity of the object.  $d\Delta\dot{\vartheta}/dt$  is the angular velocity of the object about the vertical line.  $H$  is the kinetic moment of the gyroscope rotor.  $\mu$  is a constant.  $g$  is the gravitational constant.  $I$  is the moment of inertia of the mobile frame about its own axis of rotation.  $d\Delta\dot{\vartheta}_1/dt$  is the angular velocity of the base plate 9 about the object.  $U_a$  is the voltage at the output of the accelerometer 4 (Fig.1).  $\mu_1$  and  $\mu_2$  are constants.  $p = d/dt$ .  $c$  is the value of viscosity of the liquid in which the gyro-construction group

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Problem of the Possibility of an Inner  
Damping of Inertial Systems

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S/146/60/003/C06/004/013  
B012/3060

is suspended.  $k_p$  is the transformation figure of gearing 8,  $k_z$  is the transformation figure of motor 7, G is the amplification factor of amplifier 6.  $I_{pi}$  is the moment of inertia of the base plate.  $k_{pi}$  are transformation figures.  $T_c$ ,  $T'_c$ , and  $H'$  are given by equations

$$\left. \begin{aligned} T_c &= \frac{I_n + \sum \frac{I_i}{k_{pi}^2}}{\sum \frac{p_i}{k_{pi}^2}}; T'_c = \frac{I_n + \sum \frac{I_i}{k_{pi}^2}}{\sum \frac{s_i}{k_{pi}^2}} \\ k_x &= \frac{k_x}{\sum \frac{s_i}{k_{pi}^2}}; H' = \frac{H}{\sum \frac{s_i}{k_x}} \end{aligned} \right\} (14)$$

$I_i$  are the moments of inertia of the individual rotating motor- and drive parts.  $s_i$  is the coefficient of friction. Proceeding from the construction diagram the solution of the equations is found. It may be

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Problem of the Possibility of an Inner  
Damping of Inertial Systems

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B012/B060

seen from it that the system is unstable, and that the strongest effect is exerted by the first and the higher derivatives of the absolute velocity  $V_z$  of the aircraft, as well as the third and the higher derivatives of  $\omega$ . From the solution it is also possible to observe the possibilities for an inner damping in the system : 1) introduction of signal according to angle  $\theta$ , 2) reduction of the order of  $(Ip + c)(T_c p + 1)p^2$ , formula (23): this can be achieved a) by covering the gyroscope by a negative feedback with a transfer function; for this case, the construction diagram shown in Fig.4 is recommended; b) by replacing the integrating gyroscope by a differentiating, and the integrating servodrive by a proportional one: Fig.5. Recommendations are given as to the compensation of the systematic error arising in damping. The best results can be obtained with the aid of the scheme shown in Figs. 4 and 5. The publication of this article was recommended by the kafedra avtomatiki (Department of Automation). There are 5 figures and 1 Soviet reference.

Card 4/9

87868

Problem of the Possibility of an Inner  
Damping of Inertial Systems      S/146/60/003/006/004/013  
    3012/3060

ASSOCIATION: Kiyevskiy institut grazhdanskogo vozdushnogo flota  
(Kiyev Institute of the Civil Air Fleet)

SUBMITTED: March 23, 1960

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Card 5/9

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S/146/60/003/006/004/013  
B012/B060

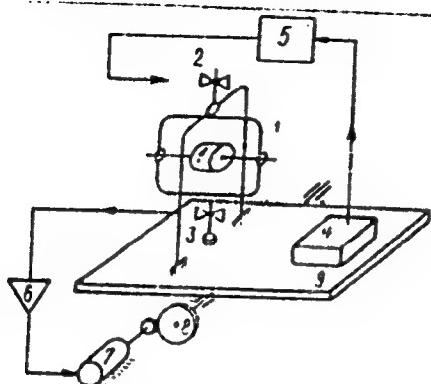


Fig.1

Legend to Fig.1: 1) gyroscope, 2) momentum pickup, 3) angle pickup,  
4) accelerometer, 5) not given, 6) amplifier, 7) motor, 8) gearing,  
9) base plate.

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B012/B060

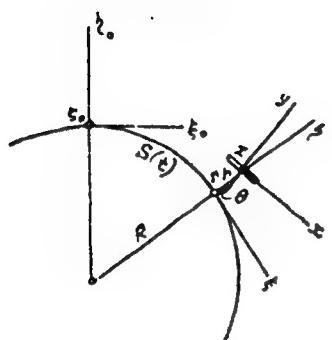


Fig.2

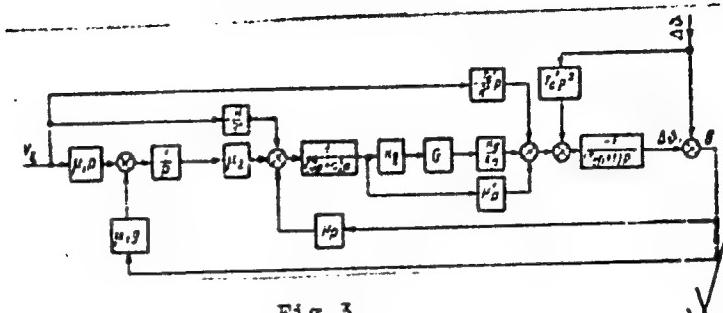


Fig.3

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B012/B060

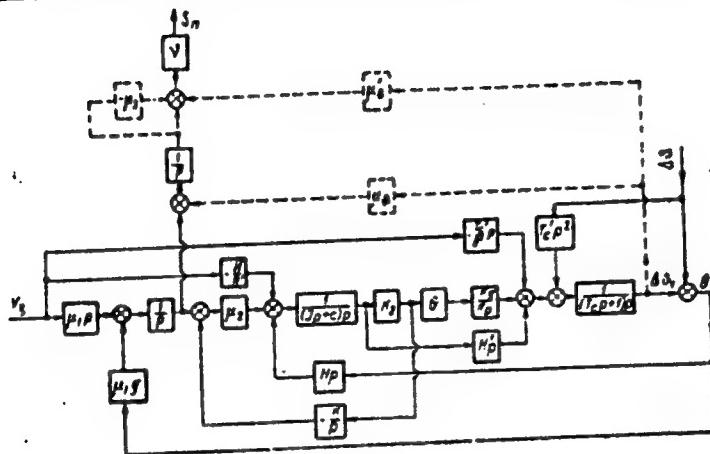


Fig. 4

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EEO-2/EWT(d)/ZEC-4 Pn-4/Po-4/Pq-4/Pg-4/Pk-4/P1-4 IJP(c)

GS/BC

ACCESSION NR: AT6004134

S/0000/64/000/000/0449/0456

S4  
B+1

AUTHOR: Smenkovskiy, Ye. G.

TITLE: Application of the theory of invariance to the synthesis of inertial navigation systems

SOURCE: Vsesoyuznoye soveshchaniye po teorii invariantnosti i yeye primeneniyu v avtomaticheskikh sistemakh. 2d, Kiev, 1962. Teoriya invariantnosti v sistemakh avtomaticheskogo upravleniya (Theory of invariance in automatic control systems); trudy soveshchaniya. Moscow. Izd-vo Nauka, 1964, 449-456

TOPIC TAGS: inertial navigation system, invariance theory, motion equation, gyroscope

ABSTRACT: The application of the theory of invariance to the synthesis of inertial navigation systems (INS) is investigated. The specific case of an invariant system is investigated as an example of an inertial navigation system, when the point of application of the perturbing action practically coincides with the input point of the useful signal. The author commences by finding the equation of motion and the block diagram of the simplest INS. The author then determines the compensation of the effect of the perturbing forces. He determines that an auxiliary channel compensates for the effect of the perturbing forces. This means that the error associated with inherent oscillations of the platform

Card 1/2.

L 30100-65

ACCESSION NR: AT5004134

relative to the vertical can be eliminated when tuning from the indications of the INS.  
"G. O. Fridlander commented on the manuscript." Orig. art. has: 6 figures and 28  
formulas.

ASSOCIATION: none

SUBMITTED: 24Sep64 ENCL: 00 SUB CODE: NG, IE

NO REF SOV: 003 OTHER: 000

Card 2/2

ACCESSION NR: AP4041650

S/0146/64/007/003/0060/0066

AUTHOR: Smenkovskiy, Ye. G.

TITLE: Comparing various inertial navigation systems

SOURCE: IVUZ. Priborostroyeniye, v. 7, no. 3, 1964, 60-66

TOPIC TAGS: navigation system, navigation, inertial navigation

ABSTRACT: Three classes of inertial navigation systems differing in platform-stabilization methods are compared: (1) Systems with the platform stabilized in the true-horizon plane; (2) Systems with the platform stabilized along an inertial direction; (3) Systems with the platform rigidly tied to the vehicle frame ("platformless"). The compensation of undesirable components of the total acceleration is performed by simple computing devices in the 1st and 2nd classes; in the 3rd class, in addition, wide-range angular-velocity measuring instruments are needed, constituting a disadvantage of this class. Two versions of the 1st

Card 1/2

SMERAK, J.

Construction of new plants in the food industry and the task of plant  
designers.

p. 114  
Vol. 6, no. 3, 1955  
PRUMYSL POTRAVIN  
Praha

SOURCE: Monthly List of East European Accessions (EEAL), LC, VOL. 5, no. 3  
March 1956

Brno, c.

Ceramic materials and earthenware stone for purposes of building and architecture,  
p. 92.

Vol. 34, no. 3, Jan. 1956

SVAVIC

Praha, Czechoslovakia

Source: East European Accession List. Library of Congress  
Vol. 5, No. 3, August 1956

1101, 1.

Problems concerning the construction of research institutes.

1. 270  
Vol. 5, no. 6, 1955  
ZA SOCIALISTICKOU VEDU A TECHNIKU  
Praha, Czechoslovakia

Source: Monthly List of East European Acquisitions, (EEAL), LC Vol. 5, no. 2  
February 1956, Uncl.

SCHMIDL, J.

"An attempt to correlate the strata in the Sastin area according to the content of organic matter."

p. 26 (Prage) No. 26/30, 1956  
Prague , Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
Arr 11 1958

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651420017-4

The chromatographic microanalysis of blisters

SPM  
Red

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651420017-4"

SHMERAL, Yu. [Smeral, J.]

From the surface petroleum exploration to the correlation of  
the strata of sedimentation. Prace ust naft 18:48-49 '61.

LYON, FRANCE, 09/17/71

Geological investigation of the organic substance of sediments  
of the Nova Viseu-1 key borehole. Frade "st. shaft 22 m., 93:96  
163 - 164.

SMERAL, Lubomir; REMAK, Svatopluk; ZOUBEK, Ratmir.

Our experience with Tosmilen in the treatment of glaucoma. Sborn.  
ved. prac. lek. fak. Karlov. univ. (Hrad Kral) (Suppl.) 4 no.3:  
305-319 '61.

1. Katedra očního lekarství; prednosta prof. MUDr. M. Klíma.  
(GLAUCOMA ther) (DECAMETHONIUM COMPOUNDS ther)

REHAK, Svatopluk; SMEAL, Lubomir

Our experience with the use of the stress test in glaucoma. Sborn.  
ved. prac. lek. fak. Karlov. univ. (Hrad Kral) (Suppl) 4 no.5:491-500  
'61.

1. Ocní klinika; prednosta prof. MUDr. M. Klíma.  
(GLAUCOMA) (STRESS)

SMERAL, Lubomir

Ectopia lentis simplex with anomalies of the angle of the anterior chamber. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad Kral) 5 no.1:94-104 '62.

1. Ocní klinika; prednosta prof. MUDr. M. Klíma.  
(LENS CRYSTALLINE) (AQUEOUS HUMOR)

REHAK,S.; SMERAL,L.; JURAN,J.

Diagnostic significance of tonography in simple glaucoma. Cesk.  
oftal. 20 no.1:9-11 Ja'64.

1. Ocni klinika lekarske fakulty KU v Kradci Kralove; prednosta:  
prof.dr.M.Klima.

SMERAL,L.; REHAK,S.; JURAN,J.

Combination of tonography with loading tests in the early diagnosis of glaucoma. Cesk. oftal. 20 no.4:289-293 Jl'64

1. Katedra oculního lekarství lek. fakulty KU [Karlový universita] v Hradci Králové; vedoucí: prof. dr. M. Klíma.

SMERAL, L.

Aminophylline as an adjuvant in glaucoma therapy. Cesk. oftal. 20 no.6:434-443 N '64.

1. Katedra ocního lekarství lékařské fakulty Karlovy university v Hradci Králové (vedoucí prof. dr. M. Klime).

KLIMA, M.; SMERAL, L.

Surgical therapy of advanced forms of glaucoma. Cesk. oftal.  
20 no.6:443-448 N '64.

1. Katedra očního lekarství lekarské fakulty Karlovy univerzity  
v Hradci Králové, (vedoucí prof. dr. M. Klíma).

Yugoslavia/Diseases of Farm Animals. Noninfectious R-2  
Diseases

Abs Jour : Ref Zhur-Biol., No 2, 1958, 5759

Author : Smercek Z., Gal V.

Inst : Not given

Title : Our Experiments to Evaluate the Sul'kovich Tests  
as Diagnostic Means of Traumatic Reticulitis in  
Cattle, and some Observations in Connection with  
this Reaction

Orig Pub : Veterin. Glasnik, 1956, 10, No 10, 753-757

Abstract : The Sul'kovich method (determination of Ca in  
urine) is recommended as a diagnostic method  
for the determination of hypocalcemia and tra-  
umatic reticulitis in cattle. In experiments con-  
ducted by the author, 60 definitely established

Card 1/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651420017-4"  
Yugoslavia/Diseases of Farm Animals. Noninfectious R-2  
Diseases

Abs Jour : Ref Zhur-Biol., No 2, 1958, 5759

Abstract : (clinically and rentgenologically) cases of  
traumatic reticulitis or pericarditis provided  
negative reactions in 28 cases, and positive re-  
actions in 32 cases. It was shown that there is  
no relationship between the Ca titer in the se-  
rum of cattle and the Sul'kovich urine reaction.  
In healthy as well as in sick animals the excre-  
tion of Ca in the urine varies daily, sometimes  
considerably, without any regularity. The Sul'ko-  
vich method is not suitable as a means of diag-  
nostics of traumatic reticulitis.

Card 2/2

L 33002-65 EWT(1)/EWT(m)/ENG(m)/EAP(b)/FSS-2/EWP(t) IJP(c) JD  
ACCESSION NR: AP5007365 S/0286/65/000/004/0026/0026

AUTHOR: Rushchuk, V. I.; Smerdov, I. A.; Yezerets, M. A.; Karnobatskiy, E. K.;  
Peller, V. V.; Shul'ga, F. F.

TITLE: A method for producing cupric silicate contact filler paste. Class 12,  
No. 168292

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 26

TOPIC TAGS: storage battery, filler paste, grid plug, silicate

ABSTRACT: This Author's Certificate introduces a method for producing cupric silicate contact filler paste by intensive cooling of the melt. The activity of the paste is improved by allowing the melt to flow over water-cooled rotating shafts, thus cooling it from 1650 to 852°C.

ASSOCIATION: none

SUBMITTED: 19Jul63

ENCL: 00

SUB CODE: EE, IC

NO REF Sov: 000

OTHER: 0000

Card 1/1

1. SMERDOV, V.
2. USSR (600)
4. Lumbering
7. Mastless ground-like skidding with winch TL-3. Les prom No. 1 1953
  
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Unci.

L 25714-66

ACC NR: AP6004223 (A) SOURCE CODE: UR/0331/65/000/011/0008/0009

AUTHOR: Smerdov, V. V. (Engineer, Proving ground chief)

ORG: Bisertschi Forestry (Bisertschi lespromkhoz)

TITLE: Hoisting grab equipped with a turning device

SOURCE: Lesnaya promyshlennost', no. 11, 1965, 8-9

TOPIC TAGS: hoisting equipment, forestry

ABSTRACT: A hoisting grab of improved VMG-10m type is described. The grab represents an improved version of the VMG-10 type of the MLTI system. It is of vibration type and is equipped with a rotating mechanism driven by a 0.6-kw electric motor. The grab (in open position) is 3200 mm high and 3750 mm wide. The lift speed is 0.377 m/sec. The weight is 2000 kg. The grab was used in connection with a KKU-7.5 crane for lifting and loading timber, firewood, poles, beams and other similar material. The crane operator loaded materials without the help of railway loaders. The grab can be turned at

Card 1/2

UDC: 621.86.063.2

L 25714-66

ACC NR: AP6004223

180 degrees in 15 sec. The loading operations were briefly discussed and some statistical data were given. The State Test Commission recommended the VMG-10m grab for regular series production. Orig. art. has: one photo showing the grab in operation.

SUB CODE: 13 / SUBM DATE: None / ORIG REF: 000 / OTH REF: 000

Card 2/2 *do*

TSIRLINA, D.L., prof.; SMERDOVA, Ye.M.

Prevention and treatment of minor injuries of miners. Ortop.  
travm.i protez. no.6:55-58 '61. (MIRA 14:8)

1. Iz kliniki obshchey khirurgii (zav. - prof. D.L. Tsirlina)  
Karagandinskogo meditsinskogo instituta (dir. - dotsent P.M.  
Pospelov).

(MINERS—DISEASES AND HYGIENE)

SPERLE, F.

Bed rest. p. 7. (65C RPD, Vol. 6, No. 4, 1952.)

SC: Monthly list of East European accessions. (WAI, LC, Vol. 4, No. 6, June 1955, Uncl.)

SMERDU, Franjo  
SMERDU, Franjo

Dr. Mirko Cernic and Slovenian medical terminology. Zdrav. vest.,  
Ljubljana 23 no.3-4:51-55 1954.

(NOMENCLATURE)

\*Slovenian, contribution of Mirko Cernic)

(BIOGRAPHIES

\*Cernic, Mirko)

SMERDU, J.

"Electroacoustic features of telephone sets their measurements and results obtained with the automatic Iskra telephone sets of the ATA type." II

p. 268 (Electrotehniski Vestnic. Electrotechnical Review) Vol. 25,  
no. 7/8 July/Aug. 1957 Ljubljana, Yugoslavia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

KECHEK, Yu.A.; SMERDZHYAN, L.V.

Dynamics of protein fractions in the blood serum after chloroprene  
intoxication. Izv. AN Arm. SSR. Biol. nauki 15 no.5:63-70 My '62.  
(MIRA 17:6)

1. Kafedra biokhimii Yerevanskogo meditsinskogo instituta.